



**NOAA Teacher at Sea**  
**Tamil Maldonado**  
**Onboard NOAA Ship FAIRWEATHER**  
**July 18 - 28, 2005**

**Log 7**

Saturday July 23 2005

NOAA Ship FAIRWEATHER:

Day: Sat July 23, 2005	Present Weather: F/L	Sea wave height: 2
Time: 8:00 a.m.	Visibility: 5	Swell wave height: 0
Latitude: 57 <sup>0</sup> 23.7'N	Wind direction: 180	Sea water temp: 14.0
Longitude: 151 <sup>0</sup> 21.5'W	Wind speed: 10 knots	Sea level press: 1017.1

Today I interviewed the Electrical Technician about satellites on the ship, server computers, connections among rooms, computer labs, processes of e-mails, phone communications, and digital vs. analog communication. He showed and explained all equipment they have in the computer rooms, how systems talk to each other, how the e-mail codes and compresses data, and how they are stored in lines and by priorities. He also showed me how they keep information in different places in the boat in case there is a fire in regions where they have the servers. Moreover, he explained the different satellites and which ones are being used all the time for navigation. It was really interesting to see all the systems working together.

I studied more about sonars and how they actually work undersea. I read about the sonar setup, vessel operation, data analysis, and how noise is reduced on these sonars by the speed of the ship. For example, in a SeaBat 8160 sonar the best vessel speed while doing the survey is at 10 knots. There are exciting papers of Noise Analysis explaining the type of sonars they use.

At the end of the day I did some laundry and saved pictures on disks.